ODP-81-1093
19 August 1981

MEMORANDUM FOR:  Chairman, Publications Review Board

THROUGH         :  Chief, Systems Programming Division
                   Deputy Director for Processing, ODP
                   Director of Data Processing
                   Deputy Director for Administration

STAT    FROM          :  [ ]
                         Systems Programming Division, ODP

SUBJECT         :  Request to Give a Presentation


   1.  I request permission to give a presentation describing how computer access controls may be applied to different types of systems.

   2.  When approved, I intend to speak at the [ ] Conference in     STAT
STAT   [ ] during the week of August 23rd.  The audience is expected to be comprised of about 400 persons from the United States and Canada representing organizations running similar computer systems.

   3.  None of the material to be presented is classified or controversial.  I will discuss the technical aspects of adapting a well-known computer software package that is used with batch-oriented computing system resources to control access to timesharing systems.  The problems that would be encountered during such an effort will be described in detail.

   4.  I am not under cover and will be identified as an Agency employee. I will also give the standard disclaimer that the views expressed are my own and not necessarily those of the Agency.


                              /signed/
                              [ ]                              STAT

SUBJECT:  Request to Give a Presentation

STAT    AUTHOR'S NAME: [                    ]

TITLE OF PRESENTATION:  VM Security Needs and Concerns

     I have reviewed the outline in paragraph 3 of this request, to the best of my knowledge have found it to be unclassified, and approve it for presentation.

/s/ Bruce T. Johnson

_____
Bruce T. Johnson, D/ODP

    2 1 AUG 1981
_____
Date

7s/ William N. Hart

_for_ Harry E. Fitzwater, DDA

    2 1 AUG 1981
_____
Date

STAT    ODP/P/SPD/ISB/[                    ]/08-19-81/PRBREQ9

Distribution:
   Original - addressee
        5 - Chronos
        2 - DDA

# ACF2 Support in a VM Environment
# Enhanced Support for Batch Services

I – Optimally Offer the Full ACF Command in VM/CMS
  1 Use Service Virtual Machine for Data Base Access
  2 Use Virtual Machine Communication Facility VMCF
  3 Implies Common Data Base and Logonids

II – Provide Access to Sequential Backup Copy of ACF2 Data
  1 Allow Rule Test and Development
  2 Create A Batch Job to Update Data Base via RSCS
  3 Implies Common Data Backup and Logonids
  4 Eliminates Service Virtual, but can Expose Rules

III – Provide Interactive Job Submission Facility
  1 Simulates TSO Commands but Builds Batch Jobs via RSCS
  2 Requires Networking or Enhanced VM RSCS
  3 Slowest Least Desirable Implementation
  4 Eliminates Service Virtual, no DASD Sharing

# ACF2 Support in a VM Environment
# Support for VM — Logon and CMS Disks

I — Optimally Offer the Full ACF Support in VM/CMS
  1 Use Service Virtual Machine for Data Base Access
  2 Use Virtual Machine Communication Facility VMCF
  3 Implies Common Data Base and Logonids
  4 Replaces Logon, Link and Access

II — Requires Changes to CP, in Addition to CMS
  1 Will Require Significient Changes to Startup Processing
  2 Could be Patterned After Cornell Mini Disk Manager
  3 Could be Implemented to Only Replace Link and Access
  4 Reduces System Overhead, and Simplifies Startup

# ACF2 Support in a VM Environment
# Support for VM Access to OS Disks

I – Optimally Offer the Full ACF Support in VM/CMS
  1 Use Service Virtual Machine for Data Base Access
  2 Use Virtual Machine Communication Facility VMCF
  3 Implies Common Data Base and Logonids
  4 Implies Very High Overhead – Every SIO

II – Provide Access to OS Disks but Limit Use and Position
  1 Allow Access on Volume Basis
  2 Allow Access but Limit Data Sets to Cyllinders
  3 Restrict Data Set Types and Force Single Volume
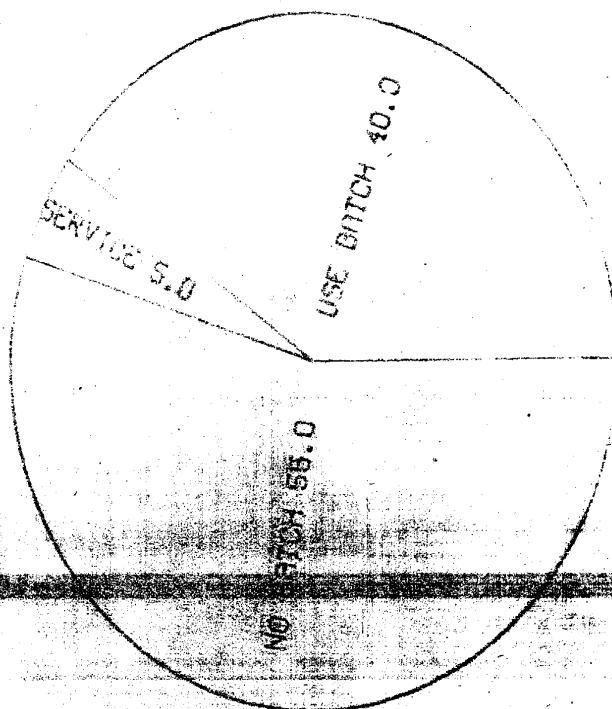  4 Reduces System Overhead, but Limits Coverage

CPYRGHT

## JOB ORIGINS
### percent of jobs

VM 60.0

REMOTE 10.0

?? 5.0

MINI 25.0
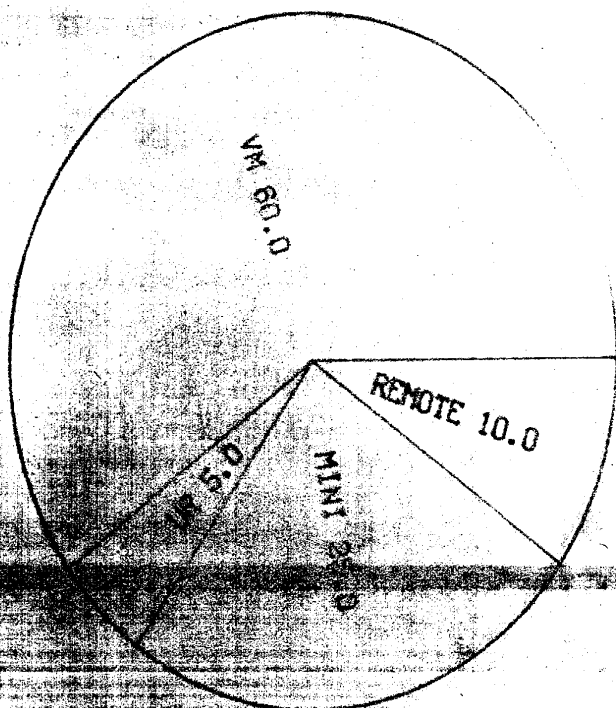
## VM BATCH USAGE
### percent of users

USE BATCH 40.0

SERVICE 5.0

NO BATCH 55.0

# VM/ACF2 IN AN MVS ENVIRONMENT

I − Introduction
  1 Introduce self
  2 Agency disclaimer

II − Evironment discription
  1 Ruffing Center
  2 Each machine
  3 Workload demographics

III − ACF2 Support in a VM Environment
  1 Enhanced Support for Batch Services
  2 Support for VM Access TO OS Disks
  3 Support for VM − Logon and CMS Disks

# A C F 2   U S E R   E X P E R I E N C E

Central Intelligence Agency
Washington, DC   20505

STAT

STAT

Foil 1

## Installation History

| | |
|---|---|
| May 1980 | ACF2 used to validate accounting data required local modification to jes3 - user exit 29 |
| January 1981 | ACF2 used for access controls modification to VM/SP RSCS to supply JOBFROM information, and JES3 to accept JOBFROM information |
| March 1981 | ACF2 selective abort mode by office |
| June 1981 through STORRULE | ACF2 inhouse user training developed execs to interface VM users to ACF2 batch, LISTRULE, TESTRULE, COMPRULE, and |
| August 1981 | ACF2/TMS automatic foreign tape protection |

Foil 2

## Current Systems

- Central timesharing on a 3033MP running VM

- ~~Special~~ application on a dedicated 158UP running VM

- Prototype database system on 4331-1s running VM

    3033 class
- Eight mainframes running MVS/JES3

- ~~470/V8 - pure batch/backup~~

- ~~3033up - DATABASE(GIMS) - limited batch~~

- 168 - ONLINE TP information retrieval

- 168 - DATABASE(GIMS) - backup GLOBAL

- 168 - GLOBAL(JES3)

- 470/V6 - DATABASE(GIMS) standalone JES3 GLOBAL

- 158ap - batch - backup GLOBAL

- ~~470/V6 - ONLINES CICS, JES3 GLOBAL~~

- MVS represents Four-fifths of aggregate computing power

*Changes requested by D/ODP*

*Foil 3*

## ACF2 function planned for 1981-1982

- production job submission using protected logonids 9/12/81

- ACFLIBUP, ACFSUBIT service routines, new JES3 disk rdr mod

- enforcement of dataset naming conventions for new data 9/12/81

- develop VS1 capability under VM

- convert TMS catalog to proper dataset names 12/1/81

- develop auditing techniques for security officers

Foil 4